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cobatoxin 1 polypeptide, comprising the steps of: synthesizing an oligonucleotide primer comprising a nucleotide sequence of at least 30 (preferably at least 40, most preferably at least 60) contiguous nucleotides derived from a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 3, 5, 7, 9, 11, 13, 15, 17, and 19, and the complement of such nucleotide sequences; and amplifying a nucleic acid fragment (preferably a cDNA inserted in a cloning vector) using the oligonucleotide primer. The amplified nucleic acid fragment preferably will encode a substantial portion of a potassium channel blocking toxin 15-1, a Bmtx toxin, a neurotoxin P2, a leurotoxin I, a leuropeptide I, a leuropeptide III, a kalitoxin 1 precursor or a cobatoxin 1.

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IN THE CLAIMS:

Please cancel claims 1-17.

Please add the following claims:

18. "added" An isolated polynucleotide comprising:

(a) a nucleotide sequence encoding a polypeptide having cobatoxin activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 have at least 80% sequence identity based on the Clustal alignment method, or

(b) the complement of the nucleotide sequence, wherein the complement and the nucleotide sequence contain the same number of nucleotides and are 100% complementary.

19. "added" The polynucleotide of Claim 18 wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 have at least 85% sequence identity based on the Clustal alignment method.

20. "added" The polynucleotide of Claim 18 wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 have at least 90% sequence identity based on the Clustal alignment method.

21. "added" The polynucleotide of Claim 18 wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:2 have at least 95% sequence identity based on the Clustal alignment method.

22. "added" The polynucleotide of Claim 18 wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:2.

23. "added" The polynucleotide of claim 18 wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID NO:1.

24. "added" A vector comprising the polynucleotide of Claim 18.

25. "added" A recombinant DNA construct comprising the polynucleotide of Claim 18 operably linked to a regulatory sequence.

26. "added" A method for transforming a cell comprising transforming a cell with the polynucleotide of Claim 18.

27. "added" A cell comprising the recombinant DNA construct of Claim 25.

28. "added" A method for producing a plant comprising transforming a plant cell with the polynucleotide of Claim 18 and regenerating a plant from the transformed plant cell.

29. "added" A plant comprising the recombinant DNA construct of Claim 25.

30. "added" A method for isolating a polypeptide encoded by the polynucleotide of Claim 18 comprising isolating the polypeptide from a cell containing a recombinant DNA construct comprising the polynucleotide operably linked to a regulatory sequence.

31. "added" An isolated polynucleotide comprising:

(a) a nucleotide sequence encoding a polypeptide having cobatoxin activity, wherein the amino acid sequence of the polypeptide comprises amino acids 22-58 of the amino acid sequence of SEQ ID NO:2, or

(b) the complement of the nucleotide sequence, wherein the complement and the nucleotide sequence contain the same number of nucleotides and are 100% complementary.